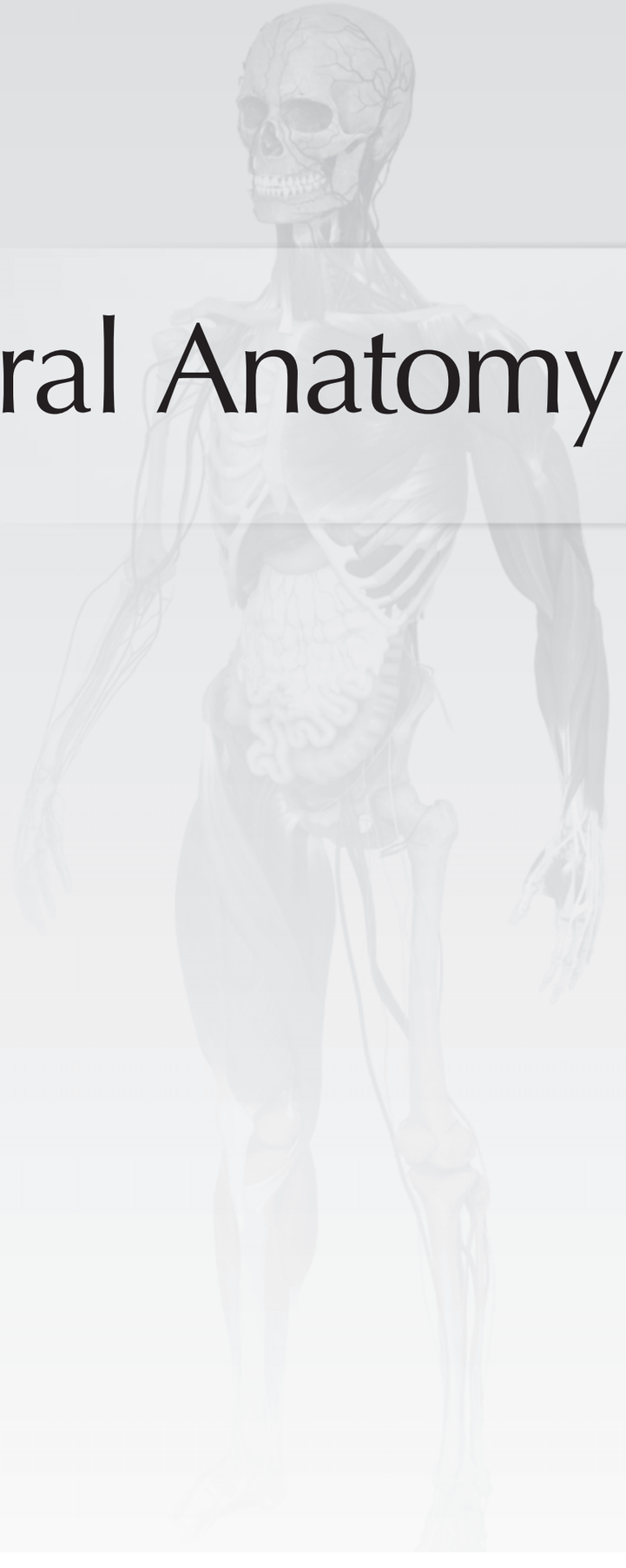
General Anatomy



Competency achievement: The student should be able to:
AN 1.1: Demonstrate normal anatomical position, various planes, relation, comparison, laterality and movement in our body

LANGUAGE OF ANATOMY

Define the Following

Anatomical position:

Supine position:

Prone position:

Draw diagram of anatomical position

Anatomical Planes

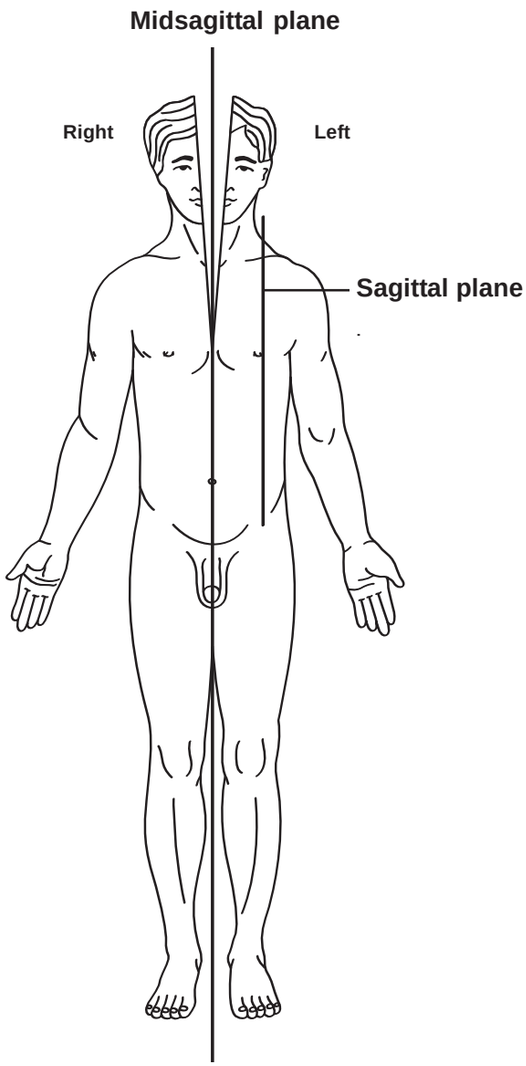
Define the Following

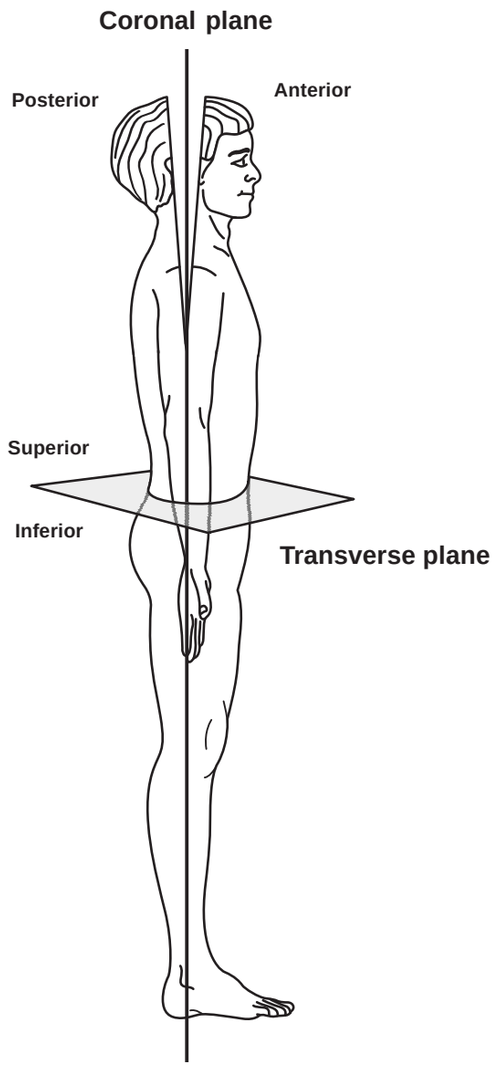
Median/Midsagittal plane:

Sagittal plane:

Coronal plane:

Horizontal/Transverse plane:





Anatomical Terms for Position/Location of Various Structures

i. Superior:

ii. Inferior:

iii. Anterior:

iv. Posterior:

v. Median:

vi. Medial:

vii. Lateral:

viii. Proximal:

ix. Distal:

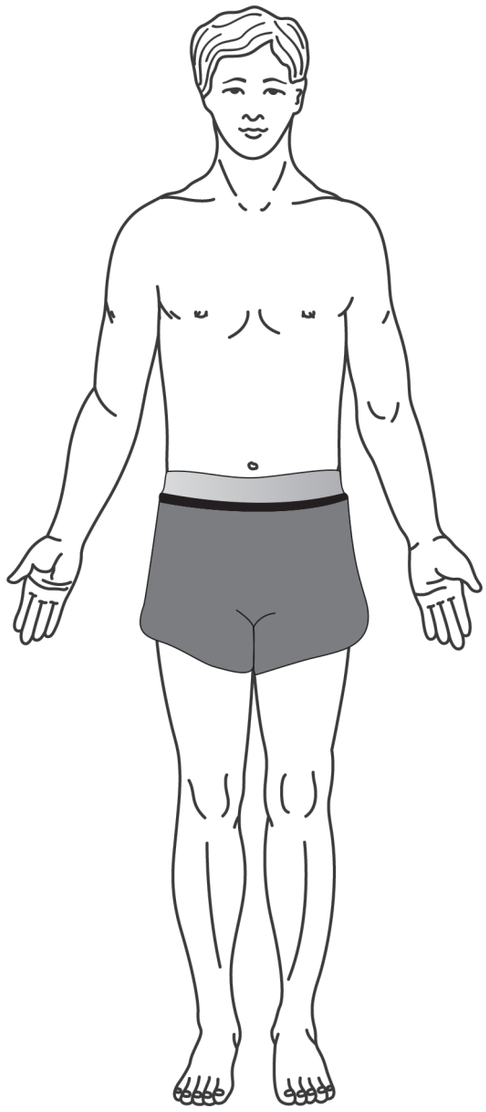
x. Superficial:

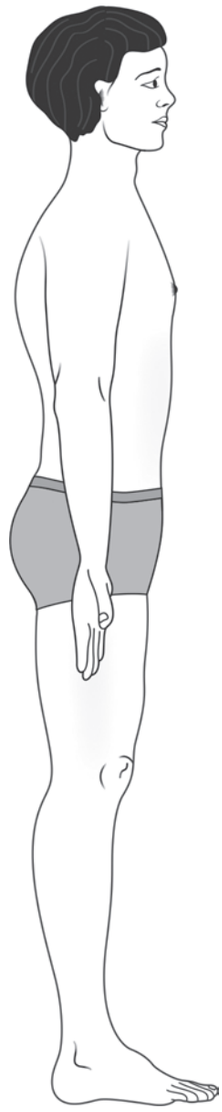
xi. Deep:

xii. Ipsilateral:

xiii. Contralateral:

Label Anatomical Terms for Position/Location of Various Structures





Draw diagram:

Superficial/Deep	Invagination	Evagination

TERMS FOR MOVEMENTS

Upper Limb

i. Flexion:

ii. Extension:

iii. Abduction:

iv. Adduction:

v. Medial rotation:

vi. Lateral rotation:

vii. Circumduction:

viii. Pronation:

ix. Supination:

x. Opposition of thumb:

Draw diagram:

Medial/Lateral rotation at shoulder joint	Adduction/Abduction at shoulder joint
Flexion/Extension at elbow joint	Supination/Pronation of forearm
Adduction/Abduction of fingers	Opposition of thumb

Lower Limb

Movements of Hip Joint

Flexion:

Extension:

Abduction:

Adduction:

Medial rotation:

Lateral rotation:

Circumduction:

Movements of Knee Joint

Extension and locking:

Unlocking and flexion:

Movements of Foot

At ankle joint

Plantar flexion:

Dorsiflexion:

At talocalcaneonavicular joint

Inversion:

Eversion:

Draw diagram:

Medial/Lateral rotation of hip joint	Flexion/Extension of hip joint
Abduction/Adduction of hip joint	Flexion/Extension of knee joint
Dorsiflexion/Plantar flexion of ankle joint	Inversion/Eversion at subtalar joint

Head and Neck

Terms for Movements of Head and Neck

Flexion:

Extension:

Side-to-side movement:

Lateral flexion:

At Temporomandibular Joints

Opening the mouth:

Closure of the mouth:

Protraction:

Retraction:

Side-to-side movement:

Draw diagram:

Protraction/Retraction	Lateral flexion of neck

Trunk

Flexion:

Extension:

Lateral flexion:

Lateral rotation:

Draw diagram:

Flexion/Extension	Lateral flexion

Competency achievement: The student should be able to:
AN 1.2: Describe composition of bone and bone marrow

SKELETON

Enumerate five important functions of bones

Classification of Bones

According to Shape

Long:

Long short:

Short:

Flat:

Irregular:

Pneumatic:

Competency achievement: The student should be able to:
AN 1.3: Enumerate special features of a sesamoid bone

Sesamoid:

Draw diagram:

Long bone

Long short bone

Short bone

Flat bone

Pneumatic bone

Irregular bone

Sesamoid bone

Competency achievement: The student should be able to:
AN 2.1: Describe parts, blood and nerve supply of a long bone

Draw diagram:

Growing long bone

Blood supply of a growing long bone

Define Parts of a Growing Long Bone

Epiphysis:

Diaphysis:

Metaphysis:

Periosteum:

Bone marrow
- Red:

- Yellow:

Blood supply of a growing long bone
- Epiphyseal artery:

- Periosteal arteries:

- Nutrient artery:

- Metaphyseal artery:

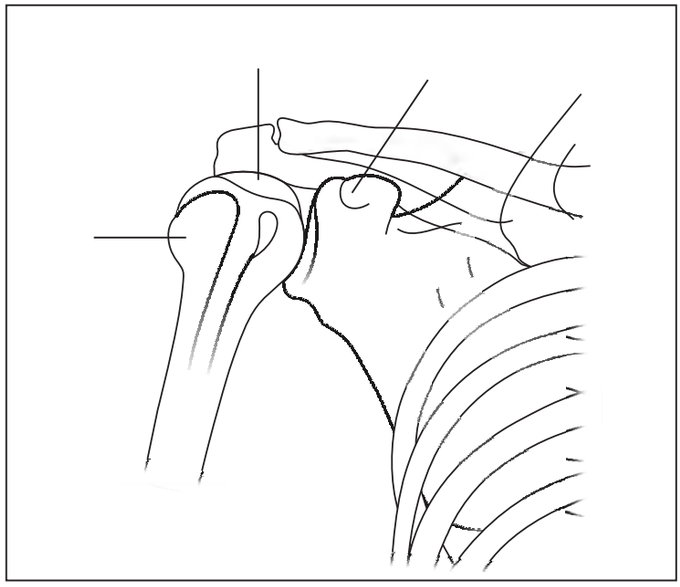
Definition of Epiphysis

Types of epiphyses

1. Pressure epiphysis:

2. Traction epiphysis:

3. Atavistic epiphysis:



Types of epiphyses

Competency achievement: The student should be able to:
AN 2.4: Describe various types of cartilage with its structure and distribution in body

CARTILAGE

Features

Types of cartilages with examples

1. Hyaline cartilage:

2. Elastic cartilage:

3. Fibrocartilage:

CLINICAL ANATOMY

Write briefly

Fracture:

Osteoporosis:

Osteomyelitis:

Rickets:

Osteomalacia:

Competency achievement: The student should be able to:
AN 2.5: Describe various joints with subtypes and examples

JOINTS

Classification of Joints (Give examples only)

I. According to Movement

A. Immovable:

B. Partially movable:

C. Freely movable:

II. According to Binding Substance

A. Fibrous:

B. Cartilaginous:

C. Synovial:

Draw diagram showing types of sutures	Draw diagram of gomphosis

Fibrous Joints

Cartilaginous Joints (Give examples only)

Primary:

Secondary:

Draw diagram of primary cartilaginous joint	Draw diagram of secondary cartilaginous joint

Typical Synovial Joint (Draw diagram)

Types of Synovial Joints (Give two examples only)

1. Plane:

2. Hinge:

3. Pivot:

4. Condylar:

5. Ellipsoid:

6. Saddle:

7. Ball and socket:

Draw diagram:

Plane joint	Hinge joint
Pivot joint	Condylar joint

Draw diagram:

Saddle joint

Ellipsoid joint

Ball and socket joint

CLINICAL ANATOMY

Write briefly

1. Rheumatoid arthritis:

2. Osteoarthritis:

3. Disc prolapse:

Competency achievement: The student should be able to:
AN 3.2: Enumerate parts of skeletal muscle and differentiate between tendons and aponeuroses with examples

MUSCLES

Define the Following Terms

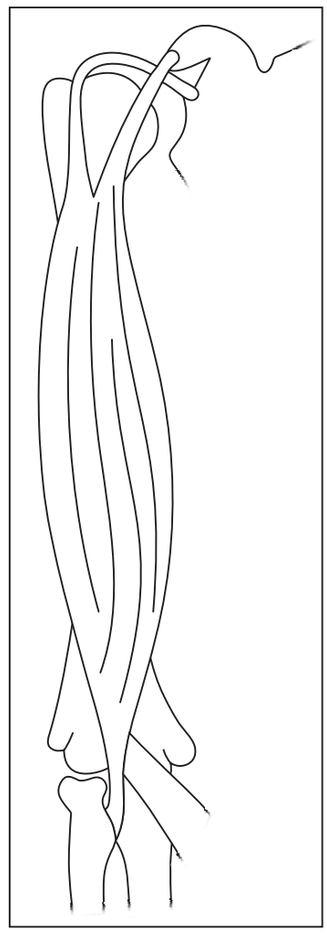
1. Origin:

2. Insertion:

3. Belly:

4. Tendon:

5. Aponeurosis:



Components of a muscle

Classification of Muscles

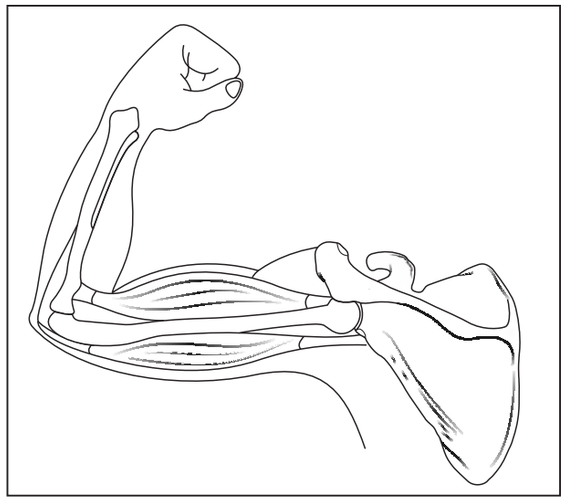
According to Functions

1. Prime movers:

2. Antagonists:

3. Fixators:

4. Synergist:



Prime mover and antagonist

Classification of Muscles

Feature	*Skeletal*	*Smooth*	*Cardiac*
Location			
Shape			
Nerve supply			
Contraction			
Nature			
Branching			
Nuclei			
Bands			
Intercalated disc			

Competency achievement: The student should be able to:
AN 3.1: Classify muscle tissue according to structure and action

Classification of Muscles

According to architecture of muscle (give one example each)

A. Parallel fasciculi

i. Quadrilateral:

ii. Strap-like:

iii. Strap-like with tendinous intersections:

iv. Fusiform:

B. Spiral fasciculi

C. Oblique fasciculi

i. Triangular:

ii. Unipennate:

iii. Bipennate:

iv. Multipennate:

v. Circumpennate:

Draw diagram:

Unipennate	Bipennate	Multipennate

CLINICAL ANATOMY

1. Hypertrophy:

2. Hyperplasia:

3. Atrophy:

4. Paralysis
   i. Flaccid paralysis:

   ii. Spastic paralysis:

Competency achievement: The student should be able to:
AN 5.4: Explain functional difference between elastic, muscular arteries and arterioles

BLOOD VESSELS

Functional Classification of Blood Vessels. Write briefly

1. Large/Elastic artery:

2. Muscular artery:

3. Arteriole (resistance arteries):

4. Capillary/Exchange vessel:

5. Venule and vein:

6. Shunt:

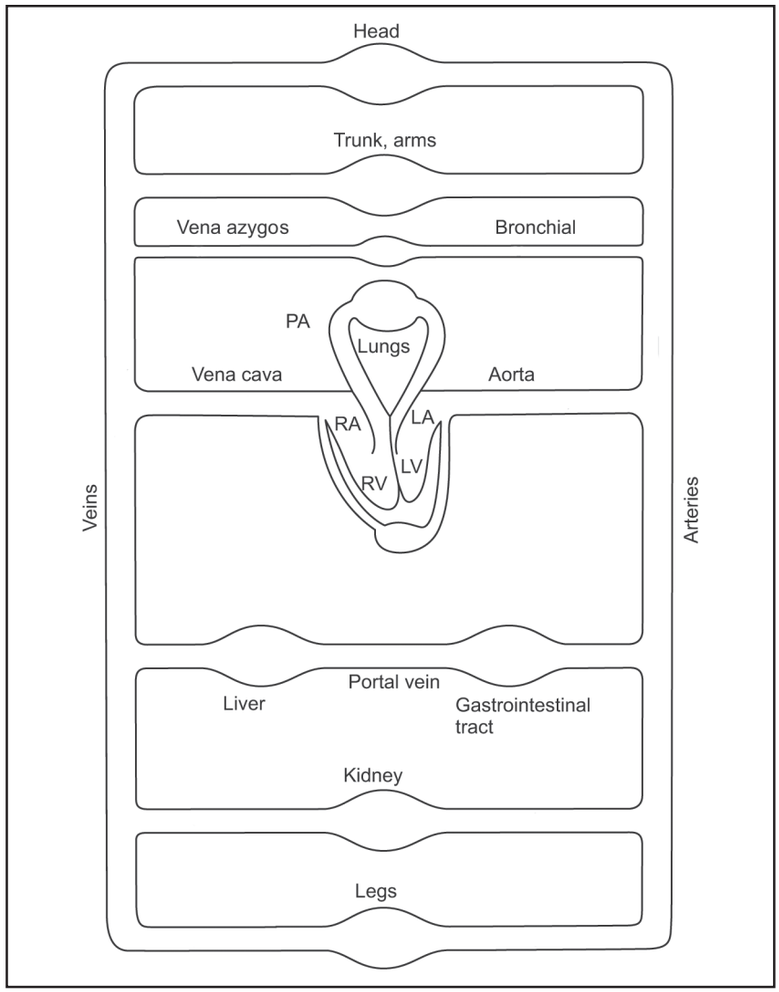
Competency achievement: The student should be able to:
AN 5.2: Differentiate between pulmonary and systemic circulation

Types of Circulation

i. Systemic/Greater circulation:

ii. Pulmonary/Lesser circulation:

iii. Portal circulation:



Types of circulation

Competency achievement: The student should be able to:
AN 5.3: List general differences between arteries and veins

Comparison of Artery and Vein

Feature	*Artery*	*Vein*
1. Function		
2. Wall		
3. Lumen		
4. Valves		
5. Pressure		
6. Ratio of tunica media: tunica adventitia		

CLINICAL ANATOMY

Define

1. Arteriosclerosis:

2. Phlebitis:

3. Arteritis:

Competency achievement: The student should be able to:
AN 5.6: Describe the concept of anastomoses and collateral circulation with significance of end-arteries
AN 5.8: Define thrombosis, infarction and aneurysm

4. End-arteries:

5. Aneurysm:

6. Varicose veins:

7. Ischaemia:

8. Infarction:

9. Thrombosis:

10. Embolism:

Competency achievement: The student should be able to:
AN 6.1: List the components and functions of the lymphatic system
AN 6.2: Describe structure of lymph capillaries and mechanism of lymph circulation

LYMPHATIC SYSTEM

Components of Lymphatic System

A. Lymph vessels

i. Lymph capillaries:

ii. Lymphatics:

iii. Lymph trunk:

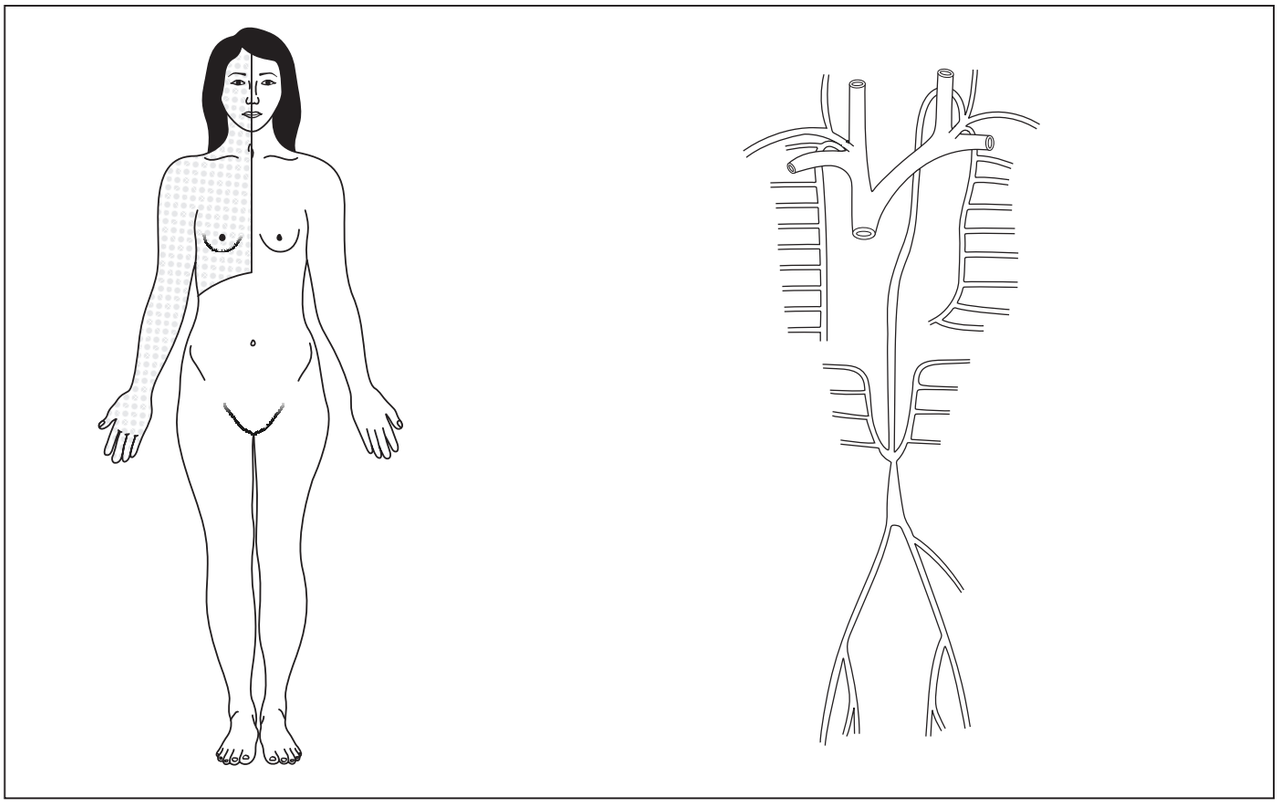
B. Central lymphoid tissue

i. Bone marrow:

ii. Thymus:

C. Peripheral lymphoid organs: Sites

D. Lymphocytes



Lymphatic system

CLINICAL ANATOMY

1. Lymphadenitis:

2. Lymphangitis:

3. Spread of diseases by lymphatics:

Competency achievement: The student should be able to:
AN 7.2: List components of nervous tissue and their functions
AN 7.3: Describe parts of a neurone and classify them based on number of neurites, size and function

NERVOUS SYSTEM

I. Classification of Nervous System

A. Central Nervous System

i. Brain with cranial nerves:

ii. Spinal cord with spinal nerves:

B. Autonomic Nervous System

i. Sympathetic:

ii. Parasympathetic:

II. Define a Typical Neurone (multipolar)

III. Types of Neurones (with one example)

1. Pseudounipolar:

2. Bipolar:

3. Multipolar:

Draw diagram:

Pseudounipolar neurone	Bipolar neurone	Multipolar neurone

IV. Types of Neuroglia (give one function each)

A. Astrocytes

i. Fibrous:

ii. Protoplasmic:

B. Oligodendrocytes

C. Microglia

D. Ependymal Cells

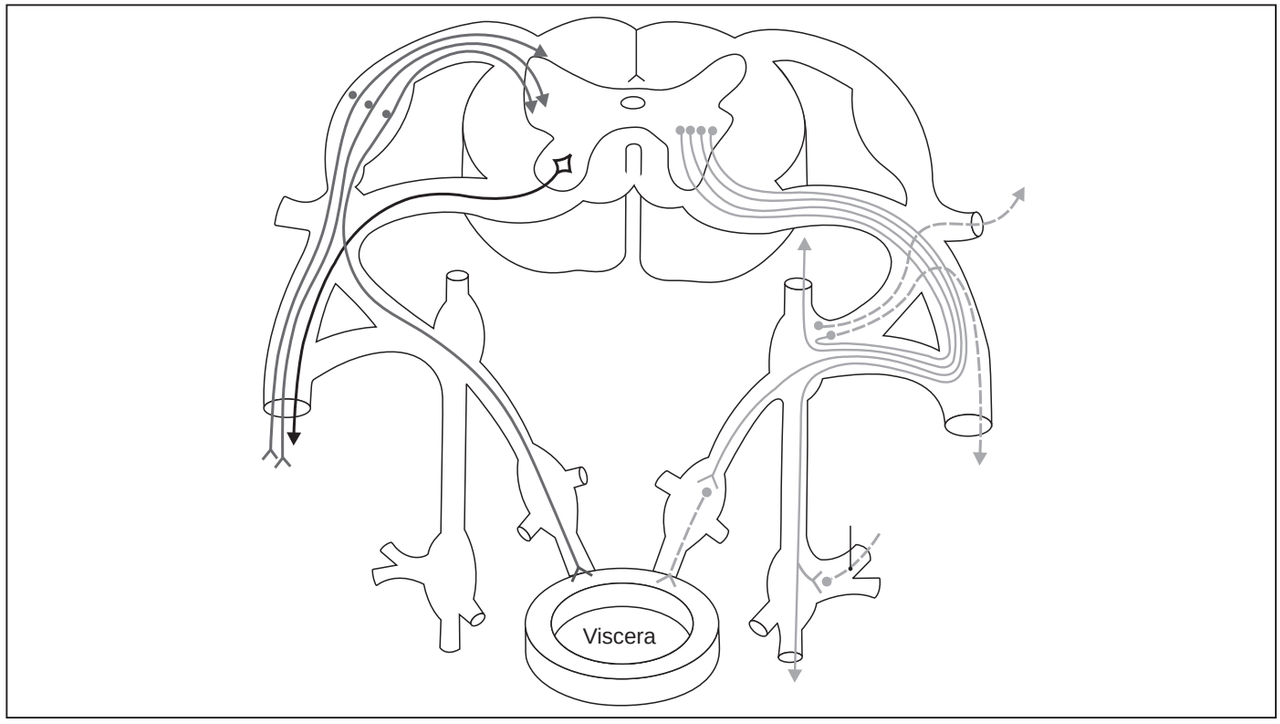
Draw diagram:

Protoplasmic astrocyte	Fibrous astrocyte
Oligodendrocyte	Microglia

Autonomic Nervous System

Features	*Sympathetic*	*Parasympathetic*
1. Name of outflow		
2. Length of preganglionic fibre		
3. Length of postganglionic fibre		
4. Neurotransmitter		
5. Functions i. Heart		
ii. GIT		
iii. Skin		
iv. Blood vessel (brain)		
v. Blood vessel (heart)		
vi. Blood vessel (GIT)		
vii. Blood vessel (skeletal muscle)		
6. Overall function		

Pathways of Sympathetic and Somatic Nerves



CLINICAL ANATOMY

1. Neuropraxia:

2. Neuralgia:

3. Herpes zoster:

4. Poliomyelitis:

Competency achievement: The student should be able to:
AN 4.2: Describe structure and function of skin with its appendages

SKIN AND FASCIAE

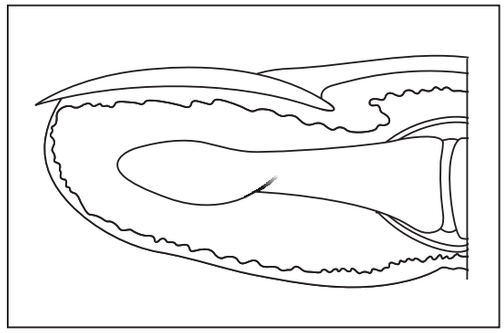
A. Enumerate

1. Five functions of skin:

2. Layers of epidermis:

3. Five appendages of skin:

4. Functions of superficial fascia:



Parts of nail

Competency achievement: The student should be able to:
AN 4.4: Describe modifications of deep fascia with its functions

5. Modification of deep fascia:

B. Define Dermatome

CLINICAL ANATOMY

Why are skin incisions preferably made along the cleavage lines?

Effects of sympathetic stimulation on the structures in the skin.

Write briefly

1. Factors responsible for colour of skin:

2. Acne: